Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (canceled)

2. (currently amended) The power-on device as claimed in claim 3~~1~~ wherein the first level is a low level, and the second level is a high level.

3. (Currently amended) A power-on device for a circuit system having a power supply terminal coupled to a battery and a charge input terminal coupled to an adaptor, the power-on device comprising:

a voltage detector, having an input terminal and an output terminal, wherein the input terminal is coupled to the battery; ~~The power-on device as claimed in claim 2 further comprising:~~

a first switch having a first input terminal, a first output terminal, and a first control terminal, wherein the first input terminal is coupled to the adaptor, and the first control terminal receives a first signal from the circuit system~~, wherein, when the first control terminal has a low level, the first switch is turned off, and when the first control terminal has a high level, the first switch is turned off, and the first signal is preset at high level~~;

a first diode having a first positive electrode and a first negative electrode, wherein the first positive electrode is coupled to the first output terminal, and the first negative electrode is coupled to the charge input terminal;

a second switch having a second input terminal, a second output terminal, and a second control terminal, wherein the second input terminal is coupled to the adaptor, and the second control terminal is coupled to the output terminal of the voltage detector~~, and wherein, when the second control terminal has a low level, the second switch is turned off, and when the second control terminal has a high level, the second switch is turned off~~;

a second diode having a second positive electrode and a second negative electrode, wherein the second positive electrode is coupled to the second output terminal, and the second negative electrode is coupled to the charge input terminal;

a third diode having a third positive electrode and a third negative electrode, wherein the third positive electrode is coupled to the second output terminal, and the third negative electrode is coupled to the battery;

an inverter having an input terminal and an output terminal, wherein the input terminal of the inverter is coupled to the output terminal of the voltage detector; and

a third switch having a third input terminal, a third output terminal, and a third control terminal, wherein the third input terminal is coupled to the charge input terminal, the third control terminal is coupled to the output terminal of the inverter, and the third output terminal is coupled to the battery, wherein:

when a voltage of the input terminal is below a threshold voltage, the output terminal outputs a control signal having a first level such that the adaptor supplies the circuit system through the charge input terminal to start the circuit system and charge the battery;

when a voltage of the input terminal is above the threshold voltage, the output terminal outputs the control signal having a second level such that the battery supplies the circuit system;

when the first control terminal has the first level, the first switch is turned on;

when the first control terminal has the second level, the first switch is turned off, and the first signal is preset at the second level;

when the second control terminal has the first level, the second switch is turned on, and when the second control terminal has the second level, the second switch is turned off; and

when the third control terminal has the first ~~a low~~ level, the third switch is turned on ~~off~~, and when the third control terminal has the second ~~a high~~ level, the third switch is turned off.

4. (original) The power-on device as claimed in claim 2 further comprising:

a display panel; and

an analog-to-digital converter having an input terminal and an output terminal, wherein the input terminal of the analog-to-digital converter is coupled to the battery and the output terminal of the analog-to-digital converter is coupled to the display panel to show charge capacity of the battery.

5. (currently amended) The power-on device as claimed in claim 3~~1~~ wherein the circuit system is a handset.

6. (currently amended) The power-on method as claimed in claim 3~~1~~ wherein the threshold voltage is 3.2V.

7. (currently amended) A power-on method for a circuit system having a power supply terminal and a charge input terminal, comprising:

coupling the power supply terminal to a battery and the charge input terminal to an adaptor;

detecting a voltage of the battery, wherein when the voltage of the battery is below a threshold voltage, a control signal having a first level is output;

turning on a second switch such that the adaptor supplies the circuit system through the charge input terminal and the second switch to start the circuit system and charge the battery;

detecting a voltage of the battery, wherein, when the voltage of the battery is above a threshold voltage, the control signal having a second level is output such that the second switch is turned off, a third switch is turned on, the charge input terminal is coupled to the battery through the third switch, and the battery supplies the circuit system; and

outputting a switch signal from the circuit system to control a first switch coupled between the adaptor and the charge input terminal for controlling charge capacity.

8. (original) The power-on method as claimed in claim 7 wherein the first level is a low level, and the second level is a high level.

9. (original) The power-on method as claimed in claim 7 wherein the threshold voltage is 3.2V.

10. (original) The power-on method as claimed in claim 7 further comprising the step of converging voltage of the battery to display data and displaying the display data to show charge capacity.

11. (original) The power-on method as claimed in claim 7 wherein the circuit system is a handset.

12. (canceled)

13. (currently amended) The power-on method as claimed in claim 14 ~~12~~ further comprising the step of converging voltage of the battery to display data and displaying the display data to show charge capacity.

14. (currently amended) A power-on method for a circuit system, comprising:

coupling a terminal of the circuit system to a battery and the other terminal of the circuit system to an adaptor;

detecting a voltage of the battery, wherein when the voltage of the battery is below a threshold voltage, the adaptor supplies the circuit system to start the circuit system and charge the battery; and

detecting a voltage of the battery, wherein when the voltage of the battery is above a threshold voltage, the battery supplies the circuit system;

~~The power-on method as claimed in claim 12~~ wherein the circuit system is a communication apparatus.

15. (currently amended) The power-on method as claimed in claim 14 ~~12~~ wherein the threshold voltage is 3.2V.

16. (currently amended) The power-on method as claimed in claim 14 ~~12~~ wherein, when the voltage of the battery is below a threshold voltage, a control signal having a first level is output to turn on a second switch such that the adaptor supplies

the circuit system through the second switch to start the circuit system and charge the battery.

17. (currently amended) The power-on method as claimed in claim 16 wherein, when the voltage of the battery is above a threshold voltage, a control signal having a second level is output to turn off the second switch and turn on a third switch such that the circuit system is coupled to the battery through the third switch and the battery supplies the circuit system.

* * *